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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/667,874	09/22/2003	Christoph Liebetrau	16525	1177

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EXAMINER	
KRUER, STEFAN	
ART UNIT	PAPER NUMBER
3654	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/667,874	LIEBETRAU ET AL.	
	Examiner	Art Unit	
	Stefan Kruer	3654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 July 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 - 18* is/are pending in the application.

4a) Of the above claim(s) *13 - 14* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 - 4, 8 - 12, and 15 - 18* is/are rejected.

7)☒ Claim(s) *5 - 7* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 September 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1 – 4, 8, 12 and 15 - 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huang et al (6,082,506) in view of Liebtrau et al (6,012,533) and in further view of Price (837,961).

Re: Claims 1 – 3, Huang et al disclose a safety device comprising:

- Retaining element (11, Fig. 5),
- An abutment (20) spaced from and fixed relative to said retaining element,
- A braking element (43, Fig. 6) movably positioned between said retaining element and said abutment and spaced a distance from said retaining element to accept a portion (along 20) of a guide rail (5, Fig. 8),
- A lever mechanism (45) connected to said braking element for moving said braking element to a braking readiness position contacting the surface of a guide rail (Fig. 6), whereby downward movement of the elevator causes said braking element to be squeezed between the guide surface and said abutment, *when the elevator is stopped*,
- said braking element is a blocking roller,
- said abutment is angled relative to said retaining element whereby an interspace (Col. 4, Line 23) narrows between said retaining element and said abutment opposite a predetermined direction of motion of the elevator car;

however, Huang et al are silent with respect to a rest position for the braking element and an operating mechanism connected to said lever mechanism.

Attention is direct to Liebtrau et al who teach a rest position (Col. 3, line 4, Fig. 2) for their brake element (6) wherein their lever mechanism (8) is utilize to move their brake element from a rest position to a brake readiness ("catch") position (Col. 2, line 67), as compositional of their "... self-centering, simply constructed safety device affording gentle force transmission to the construction of their elevator car (sic)..."

However, Liebtrau et al are silent with respect to the details of an operating mechanism connected to said lever mechanism for selectively moving said braking element between said rest and brake readiness positions.

Attention is directed to Price who teach their operating mechanism (32 – 42, Fig. 1) connected to their lever mechanism (22, 26, Fig. 3) for selectively moving said braking element (14, 15) between his brake rest and brake readiness positions (Page 1, Lines 15 - 21) along his guide rail, in keeping with his inventive safety brake as an ancillary to his primary braking/stopping means.

It would have been obvious to one of ordinary skill in the art to modify the reference of Huang et al with the teaching of Liebtrau et al and Price to provide a brake element having both rest and brake readiness positions, wherein an operating mechanism selectively moves the brake element from said rest- to said readiness position when the elevator is stopped as a safety back-up for elevators.

Re: Claim 4, Huang et al disclose lever mechanism swivels around an axle (44).

Re: Claim 8, Huang et al disclose lever mechanism is silent with respect to an operating mechanism and Liebtrau et al are silent with respect to the details of their operating mechanism connected to their lever mechanism, though Huang et al and Liebtrau et al disclose their brake element kept in a state of equilibrium whereby during movement of their respective elevator car, their respective brake element is moved automatically relative to their respective abutment.

Price teaches his operating mechanism whereby his brake element is brought into a brake readiness position whereby upon subsequent movement of his elevator car

his brake element is moved automatically toward his guide rail and thereby in the direction of the abutment of Huang et al and Liebtrau et al.

It would have been obvious to one of ordinary skill in the art to modify the reference of Huang et al with the teaching of Liebtrau et al and Price to provide a brake element having a state of equilibrium whereby during movement of the elevator car, the brake element is moved automatically relative to an abutment for safety and immediacy.

Re: Claim 12, Huang et al disclose their guide surface is one guide surface (20) of his cable and said retaining element (11) is a first guiding element for guiding the elevator car alongside another guide surface (approx. 176, Fig. 8) of their guide rail.

Re: Claim 15, Huang et al disclose their safety device having a U-shaped configuration.

Re: Claim 16, applicant has stated that the brake lining of the instant invention is well known to the automotive industry (Para. 54).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize materials common to automotive brake linings.

Re: Claim 17, Huang et al disclose:

- first leg and second legs (15 and 16, Fig. 1), said first leg having a lining (20) attached thereto and said second leg spaced from and fixed relative to said first leg,
- a blocking roller (43) movably positioned between said first leg and said second leg and spaced a distance from said first leg to accept a portion of a guide rail therebetween,
- a lever mechanism (45) connected to said braking element for moving said braking element from said rest position to a braking readiness position contacting the surface of said guide rail (at surface 13), whereby downward movement of movement of the elevator causes said braking element to be squeezed between the guide surface and said second leg,

however, Huang et al are silent with respect to a brake lining, a rest position for the braking element and an operating mechanism connected to said lever mechanism.

Again, Liebtrau et al and Price teach their respective rest position and operating mechanisms.

Though Huang et al discloses a lining for engaging his cable (4) or rail (5), and both Liebtrau et al and Price are silent with respect to brake linings, the use of a brake lining, the use of brake linings would have been obvious to one having ordinary skill in the art as reviewed in the previous rejection above.

It would have been obvious to one of ordinary skill in the art to modify the reference of Huang et al with the teaching of Liebtrau et al and Price to provide a brake element having both rest and brake readiness positions, wherein an operating mechanism selectively moves the brake element from said rest- to said readiness position when the elevator is stopped as a safety back-up for elevators, and whereby a brake lining is an engaging surface for enhanced frictional loading as well as affording a replaceable surface for cost savings.

Re: Claim 18, Huang et al disclose said first and second leg are formed as legs of a U-shaped safety device block (Fig. 8) and an interspace (17) narrows between said second leg and said guide surface opposite the direction of motion of the elevator car.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 9 – 11 are rejected under 35 U.S.C. 103(b) as being unpatentable in view of Huang et al, Liebtrau et al and Price, as applied to Claim 1, and in further view of Rebillard et al (US 6,173,813).

Re: Claim 9, Huang et al is silent with respect to an operating mechanism, Liebtrau et al is silent with respect to the details of his operating mechanism connected to his lever mechanism and Price teaches his operating mechanism as a mechanical device.

Attention is directed to Rebillard et al who teach their lever mechanism (94) connected to their braking element (96) of roller form, whereby their lever mechanism swivels around an axle (100) in response to an electromechanical actuator in lieu of solely mechanical means.

It would have been obvious to one of ordinary skill in the art to modify the reference of Huang et al, Liebtrau et al and Price with the teaching of Rebillard et al to provide electromechanical actuation of the braking means for the benefit of integrating an emergency brake in a electronic control systems whereby sensors and/or set parameters can affect braking.

Re: Claims 10 - 11, Huang et al is silent with respect to an operating mechanism, Liebtrau et al is silent with respect to the details of his operating mechanism connected to his lever mechanism and Price teaches his operating mechanism as a mechanical device.

Rebillard et al teach their operating mechanism having a solenoid (20) that "...exerts magnetic force... on said braking linkage..." (Col. 1, Line 58) whereby said braking element is maintained in said rest position. Furthermore, if the solenoid is deactivated, thereby extinguishing the electromagnetic force, their bolt (86) to which their lever mechanism (94) is pivotally connected, is forced by their pre-loaded spring (88) to move their braking element to a brake readiness position, whereby the braking element automatically proceeds to a full braking position in response to the opposite motion of their elevator car and the fixed position of their inclined abutment.

It would have been obvious to one of ordinary skill in the art to modify the invention of Huang et al, Liebtrau et al and Price with the teaching of Rebillard et al to provide a fail-safe mode in keeping with conventional, electromechanical control means.

Allowable Subject Matter

Claims 5 - 7 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Claim 5 contains allowable subject matter because the teachings of the prior art of record taken as a whole do not show or render obvious the combination set forth including the *guide of said lever mechanism.*

Response to Arguments

Applicant's arguments filed 13 July 2007 with respect to **Claims 1 and 17** have been fully considered but are mute upon new grounds of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stefan Kruer whose telephone number is 571.272.5913. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Cuomo can be reached on 571.272.6856. The fax phone number for the organization where this application or proceeding is assigned is 571.273.8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866.217.9197 (toll-free).

SHK, 13 September 2007

Peter M. Cuomo
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